

(August 6, 2001)

Emulsified asphalt shall be grade CMS-2M as specified below. Asphalt temperature at the time of introduction to the pugmill shall be between 54 degrees and 71 degrees C.

CATIONIC EMULSIFIED ASPHALT

MEDIUM SETTING
MIXING GRADE

Grade	TYPE	CMS-2M	
	WSDOT Test Method	Min.	Max.
Tests on Emulsions:			
Viscosity SF @ 77 F. (25 C.) sec.	212	---	---
Viscosity SF @ 122 F. (50 C.) sec.	212	150	450
Storage stability test 1 day %	212	---	1
Demulsibility 35 m.l. 0.8% sodium dioctyl sulfo- succinate, %	212	---	---
Coating ability & water resistance:			
Coating, dry aggregate	212	Good	---
Coating, after spraying	212	Fair	---
Coating, wet aggregate	212	Fair	---
Coating, after spraying	212	Fair	---
Particle charge test*	212	Positive	
Sieve test, %	212	---	0.10
Cement mixing test, %	212	---	---
Distillation:			
Oil distillate by vol. of emulsions %	212	6	12
Residue, %	212	65	---
Tests on residue from distillation test:			
Penetration, 77F. (25 C.)	201	100	250
Ductility, 77F. (25 C.) 5 cm/min., cm.	213	40	---
Solubility in trichloro- ethylene, %	214	97.5	---

*If the particle charge test is inconclusive, material having a maximum pH value of 6.7 will be acceptable.

1 The estimated emulsified asphalt content of the mixture for this type of paving is 4.5 to
2 7.5 percent.

3
4 The aggregate shall meet the requirements of the grading specified below:

5	6	7
	<u>Sieve Designation</u>	<u>Percent Passing</u>
8	19 mm square opening	100
9	12.5 mm square opening	60-80
10	4.75 mm square opening	0-28
11	2.00 mm	0-10
12	0.075 mm	0-2.0
13	All percentages are by weight	

14
15 The composite aggregate shall be free of clay, loam, organic matter, and other
16 extraneous matter occurring either free or as coating on the particles.

17
18 The fracture requirements are at least two fractured faces on 75 percent and at least
19 one fractured face on 90 percent of the material retained on each sieve, 4.75 mm and
20 above.

21
22 The aggregate shall also meet the following requirements:

- 23
- 24 1. Los Angeles Wear, 500 Rev., 30 percent max.
 - 25 2. Degradation factor - 30 min.
- 26

27 Crushed screenings shall be 4.75 mm to 0 mm in accordance with Section 9-03.4.

28
29 Acceptance of the aggregate shall be based on samples taken from the cold feed for
30 continuous mix plants and the final mix for all other plants. The plant mixed material will
31 be subject to acceptance for asphalt content at the time of mixing.

32
33 Section 9-03.8(3) is supplemented by the following:

34
35 A minimum of fifty percent of the aggregate shall be in stockpile prior to the mixing
36 operation, unless otherwise permitted by the Engineer.